



# GDOT Publications

## Policies & Procedures

**Policy:** 3545-1- Policy and Operational Guidelines for Small Unmanned Aircraft Systems (Drones)

**Section:** Intermodal Programs

**Office/Department:** 3ADMINISTRATION

**Reports To:** oCOMSR CHIEF ENGINEER

**Contact:** 404-631-1000

**GEORGIA DEPARTMENT OF TRANSPORTATION**  
**POLICY AND**  
**OPERATIONAL GUIDELINES FOR SMALL UNMANNED AIRCRAFT SYSTEMS (DRONES)**

**I. Acronyms**

**CFR:** Code of Federal Regulations

**COA:** Certificate of Waiver or Authorization

**FAA:** Federal Aviation Administration

**FARs:** Federal Aviation Regulations

**GDOT:** Georgia Department of Transportation

**UAS:** Small Unmanned Aircraft System. All references to UAS in this Policy refer to UAS weighing less than 55 pounds. GDOT does not at this time approve the use of larger drones; any such request to use one must be made to the UAS Program Manager.

**II. Purpose of these Rules**

14 CFR Part 107 issued by the Federal Aviation Administration (FAA) sets forth safety regulations for small unmanned aircraft systems weighing less than 55 pounds that are conducting non-hobbyist operations. The purpose of this policy is twofold: (1) to ensure that GDOT and its employees remain compliant with 14 CFR Part 107 as well as all applicable state and federal laws; and (2) to establish internal GDOT procedural and operational requirements in order to ensure the safety and efficiency of all UAS flight operations conducted by GDOT personnel.

These guidelines do not address every possible scenario and contingency that can arise nor is it inclusive of all rules of safety and adequate standard practice. Operators of UAS are directly responsible for their conduct and are expected to account for variations that may arise from all the factors affecting the UAS flight operation. In addition, FAA regulations shall take precedence over this policy if any discrepancy may arise.

Additional federal and states laws may apply which will affect GDOT UAS flight operations and any such laws shall take precedence over this policy. Accordingly, this policy will be continually updated as necessary.

All GDOT Forms mentioned in this policy can be submitted initially via e-mail or interoffice mail. It is the goal of GDOT to create a phone application to be utilized for the submission of these forms.

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**Date Last Reviewed:** 11/7/2017

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### **III. UAS Program Manager**

The Intermodal Aviation Program shall oversee the GDOT UAS Program. The Intermodal Aviation Program will identify an UAS Program Manager who shall administer the GDOT UAS Program.

The general duties and responsibilities of the UAS Program Manager are as follows:

- (1) Approves all [GDOT UAS Purchase/Lease Application Forms](#), or requests for the purchase or lease of UAS and accompanying equipment and software programs. A list of criteria that must be met for the approval of purchases and leases will be developed by the UAS Program Manager.
- (2) Approves all requests by GDOT employees to study for, train or test for their FAA Remote Pilot Certificate as required in the CFR and as submitted on a [GDOT UAS Pilot Certificate and Training Request Form](#).
- (3) Maintains a database of all those GDOT employees with a FAA Remote Pilot Certificate.
- (4) Oversees all internal and external GDOT pilot training and maintains a database of those who have completed such.
- (5) Maintains all [GDOT UAS Post-Flight Check Log Forms](#).
- (6) Ensures compliance with this UAS policy and other GDOT policies.
- (7) Ensures compliance with all applicable federal and state laws.
- (8) Coordinates with GDOT Legal Services to update this UAS policy as federal and state laws change.
- (9) Coordinates with GDOT Legal Services and the district Legal Coordinators for Open Records Requests.
- (10) Coordinates with Office of Employment Relations and Safety when necessary.
- (11) Coordinates with the Office of Communications when necessary.
- (12) Maintains contact with the FAA.
- (13) Maintains a file for each UAS Pilot In Command which shall include copies of the FAA Remote Pilot Certificate, training records, UAS incidents/accidents, etc.
- (14) Where necessary, maintains a file for each Visual Observer's training records and UAS incidents/accidents.
- (15) Investigates any alleged unsafe or dangerous acts committed during the operation of an UAS.
- (16) Responds to any request for UAS support from offices or districts which do not already have an UAS.
- (17) Provides the FAA with any required data, information or documentation concerning or access to GDOT UAS and equipment.
- (18) Participates in overseeing any GDOT contractors or consultants retained to operate an UAS on behalf of GDOT.

### **IV. Equipment – Purchase/Lease, Registration and Maintenance**

Equipment Purchase or Lease. Offices or districts requesting the purchase or lease of an UAS and/or accompanying equipment must complete the [GDOT UAS Purchase/Lease Application Form](#) and submit this to the UAS Program Manager. Requests can be made for items necessary to operate the UAS, including but not limited to support equipment, control stations, data links, telemetry, communications navigation equipment and software. The UAS Program Manager will develop criteria for approving UAS Purchase/Lease Applications. The costs for the UAS and/or associated equipment will be borne by the office or district requesting the UAS and/or associated equipment. The UAS Program Manager will participate in coordination with the Office of Procurement to obtain the requested or similar UAS and/or accompanying equipment.

Equipment Registration. All GDOT UAS will be properly registered in accordance with the FAA rules and regulations by the

District or Office that purchased the UAS. After receiving the FAA Small UAS Certificate of Registration, the office is required to forward a copy of the Certificate to the UAS Program Manager.

Maintenance. Everyday maintenance shall be the responsibility of the UAS Pilot In Command assigned to the subject UAS. In addition, all GDOT UAS will have a minimum yearly inspection completed by the UAS Pilot In Command assigned to the subject UAS and the UAS Program Manager prior to March 1st of each year. The UAS Pilot In Command will complete the [GDOT UAS Inventory and Inspection Form](#) for each UAS and the UAS Program Manager shall sign and retain such records. Failure to complete the inspection or failure of the inspection will result in the grounding of the UAS until the inspection is completed and the UAS passes the inspection. The UAS Program Manager may complete an inspection of the UAS and its equipment at any time if there is an incident, a malfunction, operational issues or any other reason that the UAS Program Manager determines warrants an inspection.

## **V. UAS Operators – Pilots In Command and Visual Observers**

All UAS flights must utilize a “2-person rule” as the minimum at all times. The minimum “2-person rule” will consist of a Pilot In Command and a Visual Observer.

It is the duty of every UAS Pilot In Command and Visual Observer to operate the UAS safely; this includes operating in the safest manner practicable and not taking unnecessary risks. If any UAS Pilot In Command or Visual Observer observes or has knowledge of an unsafe or dangerous act committed during the operation of an UAS, the UAS Program Manager is to be notified immediately.

The roles and responsibility of the UAS Pilot In Command and the Visual Observer are addressed separately below.

### UAS Pilot In Command

No GDOT personnel shall fly a GDOT UAS until he or she has first obtained a FAA Remote Pilot Certificate with a small UAS rating and sent proof of such to the UAS Program Manager and completed any training required by the UAS Program Manager<sup>1</sup>. All requests to study for, train, and test for the UAS Remote Pilot Certificate must first be approved by the relevant GDOT office head and the UAS Program Manager. The [GDOT UAS Pilot Certificate and Training Request Form](#) must be submitted to the UAS Program Manager. Costs for training and obtaining the license will be borne by the GDOT employee’s department or office. No GDOT employee may take the FAA Remote Pilot Certification test before obtaining approval by the GDOT UAS Program Manager.

For those GDOT employees who already have an UAS Pilot Certificate or obtain an UAS Pilot Certificate on their own, they must still be approved by the UAS Program Manager before they can operate a GDOT UAS. No GDOT employee will be reimbursed for any costs associated with obtaining an UAS Pilot Certificate on their own.

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<sup>1</sup>The only exception to this is where the Pilot in Command at his or her discretion determines that it is safe and appropriate to allow a GDOT employee who does not have their FAA remote pilot certificate to operate the GDOT UAS. In such a scenario, the Pilot in Command must maintain direct supervision of the UAS pilot, must maintain the ability to immediately take direct control of the flight of the GDOT UAS, must ensure that all federal requirements are followed and must ensure that this policy is followed.

All UAS Pilots In Command have the following roles and responsibilities listed below:

- (1) The UAS Pilot In Command must fill out the [GDOT UAS Preflight Check Form](#) and maintain this form for a period to be determined by the UAS Program Manager.
- (2) The UAS Pilot In Command must timely file the required forms with the UAS Program Manager including but not limited to the [GDOT UAS Post-Flight Check Log Form](#).
- (3) Before launch, the UAS Pilot In Command must understand the flight operation and have all applicable documentation at the ground control station.
- (4) The UAS Pilot In Command is required to be aware of weather forecasts, winds, hazards, temporary flight restrictions, and all pertinent information necessary to perform the flight operation.
- (5) A self-assessment of his or her physical condition shall be made by the UAS Pilot In Command during preflight activities. If any mental or health problems could reasonably be expected to affect an UAS Pilot In Command's ability to perform flight duties, they shall not operate the UAS and inform the UAS Program Manager.
- (6) The UAS Pilot In Command shall maintain an appropriate level of understanding of any and all FARs applicable to the airspace as well as 14 CFR Part 107. If flying under a COA, the UAS Pilot In Command shall be familiar with those requirements set forth in the COA.
- (7) The UAS Pilot In Command must have read and familiarized themselves with the contents of the specific Operator's Manual for the UAS they will operate.
- (8) The UAS Pilot In Command is directly responsible for and is the final authority over the actual operation of the UAS. Therefore, the UAS Pilot In Command has absolute authority to reject a flight based on safety concerns or a potential violation of FAA regulations.
- (9) All UAS Pilots In Command will be required to be recertified for their Remote Pilot Certificate with a small UAS rating as required by the FAA.
- (10) The UAS Pilot In Command must brief the Visual Observer(s) before each flight operation to ensure a consistent understanding of each operation.
- (11) The UAS Pilot In Command must comply with all Operational Standards set forth below.
- (12) The USA Pilot In Command will complete any annual training required by the UAS Program Manager.
- (13) The UAS Pilot In Command will maintain the amount of flight time per year as required by the UAS Program Manager.

#### Visual Observer

The Visual Observer is designated by the UAS Pilot In Command for each UAS flight operation to assist the UAS Pilot In Command to see and avoid other air traffic, obstacles or objects aloft or on the ground. Depending upon the details of the flight operation, multiple observers may be required, as determined by the UAS Pilot In Command and/or the UAS Program Manager.

All Visual Observers have the following responsibilities:

- (1) At a minimum, the Visual Observers must be familiar with this policy and the features, settings, and limitations of the UAS being operated by the UAS Pilot In Command.
- (2) The Visual Observer must receive training from the UAS Pilots In Command before each flight operation to ensure a consistent understanding of each operation.

- (3) The Visual Observers must be briefed before each flight operation by the UAS Pilot In Command to ensure a consistent understanding of each operation.
- (4) A self-assessment of his or her physical condition shall be made by the Visual Observer during preflight activities. If any mental or health problems could reasonably be expected to affect their abilities, they shall not operate as the Visual Observer and inform the UAS Program Manager and the UAS Pilot In Command.
- (5) The Visual Observer must assist the UAS Pilot In Command in not allowing the UAS to operate beyond the line of sight.
- (6) The Visual Observer must be able to see the UAS and the surrounding airspace so as to sufficiently assist the UAS Pilot In Command in determining the UAS proximity to all hazards.
- (7) The Visual Observer must comply with all Operations Standard set forth below.
- (8) The Visual Observer must maintain effective communication with the UAS Pilot In Command during the UAS flight.

## **VI. General Operation Procedures**

*Note:* The UAS Program Manager may develop standard operating procedures to be followed in conjunction with this policy.

*Note:* For additional information regarding 14 CFR Part 107, please see the following resources

- Final Rule of FAA Part 107:  
<https://www.federalregister.gov/documents/2016/06/28/2016-15079/operation-and-certification-of-small-unmanned-aircraft-systems>
- FAA Advisory Circular 107:  
[2: https://www.faa.gov/documentlibrary/media/advisory\\_circular/ac\\_107-2.pdf](2: https://www.faa.gov/documentlibrary/media/advisory_circular/ac_107-2.pdf)

The following operational procedures must be followed for all UAS operations.

### Preflight Actions

The UAS Pilot In Command must conduct a thorough preflight inspection of the UAS, which includes but is not limited to the completion of the [GDOT UAS Preflight Check Form](#). Any issues, including those with the UAS that would jeopardize safety, must be addressed before the flight operation. Otherwise, the flight operation must be cancelled or rescheduled to such time as the UAS flight operation can be conducted safely.

Prior to flight, the UAS Pilot In Command is required to be aware of weather forecasts, winds, hazards, temporary flight restrictions, and all pertinent information necessary to perform the flight operation. Weather conditions are to be recorded in the flight log.

Prior to flight, the UAS Pilot In Command will ensure that the location for take-off and emergency landing is adequate for a safe deployment.

Prior to the flight, the UAS Pilot In Command will brief the Visual Observer as to the flight operation and any other necessary information about the flight operation.

If the UAS Pilot In Command intends to fly at or near an airport, the [Notice of Intent to Fly at or Near Airport](#) must be submitted to the airport of interest with a copy to the UAS Program Manager.

#### Flight Standard Operating Procedure

14 CFR Part 107 as well as all applicable state and federal laws must be followed during the operation of the UAS.

In addition, the following must be observed when operating an UAS:

- (1) Operation of the UAS must be within the restrictions imposed by the FAA. The UAS Pilot In Command must maintain awareness of temporary flight restrictions (i.e. Presidential Visits, special events, etc.).
- (2) The UAS Pilot In Command will implement reasonable precautions to protect reasonable expectations of privacy.
- (3) No items that were not originally part of the UAS should be attached to the UAS without prior approval of the UAS Program Manager.

#### Post Flight Actions

After completion of the flight operation, the UAS Pilot In Command will complete the [GDOT UAS Post-Flight Check Log Form](#) and submit this to the UAS Program Manager by the close of the business day in which the UAS flight was conducted, exceptions to be made in limited and emergency circumstances.

### **VII. Use of Consultants and Contractors**

The UAS Program Manager will participate in overseeing any contractor or consultant who is retained on behalf of GDOT to operation UAS.

### **VIII. Retention Policy and Open Records Requests**

The UAS Program Manager will follow the applicable retention policies in maintaining all GDOT UAS Program documentation.

Requests made subject to the Open Records Act, O.C.G.A. § 40-14-1 *et seq.*, will be sent to the Office of Legal Services or the appropriate district Legal Coordinator and the UAS Program Manager will assist in responding to such.

### **IX. Property Damage and Injuries**

All accidents causing damage to the UAS or property and/or injuries must be reported immediately by the UAS Pilot In Command to their immediate supervisor and the UAS Program Manager. The UAS Pilot In Command shall also follow the reporting requirements of GDOT Policy 7180-9.

The UAS Remote Pilot In Command must report to the FAA within 10 days of serious injury, loss of consciousness, or property damage (to property other than the UAS) of at least \$500. UAS Remote Pilot In Command must notify the UAS Program Manager when reporting to the FAA.

## **X. Certificate of Waiver or Authorization**

14 CFR Part 107 Part D allows for the application and issuance of a Certificate of Waiver or Authorization (COA) which permits nationwide flights in Class G airspace at or below 400 feet, self-certification of the UAS Pilot In Command, and the option to obtain emergency COAs under special circumstances.

GDOT is in the process of determining if it will apply for a comprehensive COA and the nature of the COA.

In the interim, in order to initiate a request for a nonemergency COA to the FAA on behalf of GDOT, the following procedure must be followed:

- (1) The District Engineer/Office Head shall submit to the UAS Program Manager a written request containing a complete description of the proposed operation and a justification for the need for the COA. This submission must include supporting data, information or documentation establishing that the proposed operation can safely be conducted within the requested COA.
- (2) Upon receipt of the completed package from the District Engineer/Office Head, the UAS Program Manager will confer with a panel made up of a representative of the Chief Engineer and a representative of the General Counsel and any other subject experts as necessary in order determine whether the request for the COA should be submitted to FAA. The UAS Program Manager will provide notification to the requester of the decision of the panel.
- (3) If the request for the COA is approved, the UAS Program Manager will work with the requester, a representative of the Chief Engineer, a representative of the General Counsel and any other necessary GDOT employees or consultants to complete and submit the COA request forms to FAA.

## **XI. Disqualification from UAS Program**

UAS Pilot In Command status may be temporarily suspended at any time by the Department for reasons including but not limited to performance, proficiency or if found operating an UAS in an unsafe manner for a period to be determined by the Office of Safety and Employment Relations. Should this become necessary, the UAS Pilot In Command will be notified in writing of the reason(s). In addition, disciplinary actions up to and including dismissal may be taken.

In addition, any GDOT employee found in violation of this policy is subject to disqualification from the GDOT UAS Program for a period to be determined by the Office of Safety and Employment Relations. Should this become necessary, the GDOT employee will be notified in writing of the reason(s). In addition, disciplinary actions up to and including dismissal may be taken.

## **XII. UAS Program Manager Reporting Requirements**

The UAS Program Manager shall prepare a report annually for the Deputy Commissioner which shall include an inventory of UAS and UAS equipment purchased or leased by GDOT, the number of GDOT UAS Pilots In Command, whether any accidents have been reported, the number of UAS flight missions, and a summary of the types of UAS flight missions flown by GDOT.

## **References:**

Click here to enter Policy references, if any.

## **History:**

updated logo: 10/09/18;

new policy: 11/07/17